K051502

JUN 21 2005

Special 510(k): Device Modification

SPI® Dental Implant System, TST Surface

ADMINISTRATIVE INFORMATION

Manufacturer Name: Thommen Medical AG
Hauptstrasse 87
CH-4437 Waldenburg
Switzerland
Telephone +41 61 965 90 20
FAX +41 61 965 90 21

Official Contact: Orlando Antunes

DEVICE NAME

Classification Name: Implant, Endosseous, Root-Form (DZE)
Trade/Proprietary Name: SPI® Dental Implant
Common Name: Endosseous dental implant

ESTABLISHMENT REGISTRATION NUMBER

The Establishment Registration number for Thommen Medical AG is 3003836985. The Owner/Operator number is 9051144.

DEVICE CLASSIFICATION

FDA has classified endosseous dental implants as a Class II device (21 CFR 872.3640 according to revision 69 FR 26307, May 12, 2004). The product code for "Implant, Endosseous, Root-Form" is DZE.

CONFORMANCE WITH PERFORMANCE STANDARDS

No performance standards applicable to endosseous dental implants have been established by FDA. However, the Thommen dental implant meets the chemical and mechanical requirements of ASTM F67 and ISO 5832-2.

PREDICATE DEVICE INFORMATION

The principal predicate device for this modification is the Thommen Medical AG, SPI® Dental Implant System, cleared by FDA under K0030345, K022038, K030689, K034014.

PACKAGING/LABELING/PRODUCT INFORMATION

Thommen SPI® Dental Implants will be packaged in a radiation sterilizable package consisting of a primary container, with implant and auxiliary parts, sealed with a peel-off wrapping. The sterile packs will be grouped into storage packs. Sterilization will be accomplished by means of Co^{60}

K051502

gamma irradiation at a nominal dose of 25 kGy (2.5 Mrad). Sterilization will be validated by the bioburden method, according to ISO 11137 *Sterilization of Health Care Products – Radiation Sterilization*. The sterility assurance level (SAL) that Thommen Medical AG intends to meet for the SPI® Dental Implant System is 10^{-6}. The device is not represented to be "pyrogen free."

INTENDED USE

The Thommen SPI® Dental Implant System is intended to be surgically placed, either immediately or delayed, in the bone of the maxillary and/or mandibular arch to provide support for crowns, bridges or overdentures. SPI® Dental Implants can be loaded immediately if they are splinted with a bar on four implants in the mandibular arch or six implants in the maxillary arch.

Contraindications for the use of SPI®CONTACT implant ø 3.5 mm and SPI®ELEMENT implant ø 3.5 mm:
These implants are not suitable for applications in areas where pronounced rotation and translation movements occur, causing the implant to be subjected to large bending movements.

- Restoration of posterior teeth in the upper or lower jaw
- Single-tooth restoration of canines and central incisors in the upper jaw
- Any application involving retentive anchors

DEVICE DESCRIPTION

The design of this implant has been modified to use a new surface treatment that will be marketed as the SPI® Dental Implant TST Surface. Other components of the SPI® Dental Implant System have not been modified, are suitable for use with the modified implant, and will be sold under the SPI® Dental Implant System name.

The Thommen SPI® Dental Implant System with TST Surface (the modified design) is a self tapping, root form, endosseous dental implant made of commercially pure grade titanium. The implant surface is smooth machined on the transgingival portion and and treated with the TST surface process, in the area designed to contact bone. The modified TST Surface is available on all of the SPI® Implant System designs. The implant system is constructed of materials that have a long clinical history of proven acceptance and performance.

EQUIVALENCE TO MARKETED PRODUCT

The modified SPI® Dental Implant TST Surface has the following similarities to the predicates:

- has the same intended use,
- uses the same operating principle,
- incorporates the same basic design,
- incorporates the same materials, and
- is packaged and sterilized using the same materials and processes.

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

JUN 2 1 2005

Thommen Medical, AG
C/O Mr. Floyd G. Larson
President
PaxMed International, LLC
11234 El Camino Real, Suite 200
San Diego, California 92130

Re: K051502
Trade/Device Name: SPI® Dental Implant System, TST Surface
Regulation Number: 872.3640
Regulation Name: Endosseous Implant
Regulatory Class: II
Product Code: DZE
Dated: June 3, 2005
Received: June 7, 2005

Dear Mr. Larson:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0115. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address http://www.fda.gov/cdrh/industry/support/index.html.

Sincerely yours,

Chiu Lin, Ph.D.
Director
Division of Anesthesiology, General Hospital,
Infection Control and Dental Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

Indications for Use

Applicant: Thommen Medical AG

510(k) Number (if known): K051502

Device Name: SPI® Dental Implant System, TST Surface

Indications for Use:

The Thommen SPI® Dental Implant System, TST Surface, is intended to be surgically placed, either immediately or delayed, in the bone of the maxillary and/or mandibular arch to provide support for crowns, bridges or overdentures. SPI® Dental Implants can be loaded immediately if they are splinted with a bar on four implants in the mandibular arch or six implants in the maxillary arch.

Contraindications for the use of SPI® CONTACT implant ø 3.5 mm and SPI® ELEMENT implant ø 3.5 mm:
These implants are not suitable for applications in areas where pronounced rotation and translation movements occur, causing the implant to be subjected to large bending movements.

- Restoration of posterior teeth in the upper or lower jaw
- Single-tooth restoration of canines and central incisors in the upper jaw
- Any application involving retentive anchors

Prescription Use X (Part 21 CFR 801 Subpart D) AND/OR Over-The-Counter Use _____ (21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Kei Mulay for MSR

(Division Sign-Off)
Division of Anesthesiology, General Hospital, Infection Control, Dental Devices

510(k) Number: K051502

Page __ of ___